

LIBRARY

Braintree and Bocking Urban District.



REPORT of the Medical Officer of Health

W. J. MOFFAT
M.B., Ch.B., D.P.H.,

for the year

1946.



Braintree :
Printed by Chas. Joscelyne, High Street.

BRAINTREE & BOCKING URBAN DISTRICT.



PUBLIC HEALTH COMMITTEE.

E. C. P. BRAND, Esq. (Chairman)
G. P. KING, Esq. (Vice-Chairman)
F. APPLETON, Esq.
H. O. COOK, Esq.
A. E. CRESSWELL, Esq.
F. A. DANCE, Esq.
F. MARTIN, Esq.
W. L. WILSON, Esq.
R. C. MABBS, Esq. J.P. (ex officio)
D. SMITH, Esq. (ex officio)

PUBLIC HEALTH OFFICERS.

Medical Officer of Health.
W. J. MOFFAT, M.B., Ch.B., D.P.H.

Chief Sanitary Inspector.
S. BARKER, Cert. S.I.E.B. and Cert.
S.I.E.B. (Meat and Other Foods)

Additional Sanitary Inspector.
H. S. DAVIES, Cert. S.I.E.J.B. and Cert.
R.S.I. (Meat and Other Foods)
(until September 30th, 1946).

J. F. LEAH, Cert. S.I.E.J.B. and Cert.
R.S.I. (Meat and Other Foods)
(From November 11th, 1946).

JUNIOR CLERK.

H. CHILDS.

PUBLIC HEALTH OFFICES,
TOWN HALL,
BRAINTREE,

August, 1947.

MR. CHAIRMAN AND GENTLEMEN,

I have the honour to submit to you my Annual Report on the health and sanitary conditions of the Braintree and Bocking Urban District for the year 1946.

Dr. J. W. Nicholas, of Silver End, continued in the appointment of Acting Medical Officer of Health during 1946, pending my return from service with H.M. Forces.

The general health of the District remained good during the year. The birth rate was high compared with pre-war and the earlier war years, the death rate remained low.

The building of new houses, both permanent and temporary, was the major activity of the Council during the year. Despite the comparatively good progress made in this direction there still exists a great demand for new houses which will take several years to fulfil. It is estimated that there are some 1,000 sub-standard houses still inhabited in the Urban District, a good proportion of which are only suitable for demolition. In addition many families are compelled to share with other families the occupation of houses.

The public water supply from Notley Road Waterworks and from Bocking Waterworks was strained to its utmost to meet the ever increasing demand. Early in the year a mechanical breakdown in the pumping plant at Notley Road necessitated the obtaining of emergency supplies from Messrs. Courtauld's well at Bocking and from the Braintree Rural District Council's supply at Rayne.

To augment the existing sources the Council had called for a report from their Consulting Engineers in 1945. This scheme proposed the sinking of another borehole in the adjoining rural area.

The effluent from Braintree Sewage Works continued to be unsatisfactory. The necessary improvements to these works cannot be much further delayed. The sewerage system as a whole is becoming insufficient to deal with the flow which it is asked to take at peak periods. With the progress of house building and other development in the District, the problem of sewerage and sewage disposal will become even more urgent.

As in recent years no separate report by the Chief Sanitary Inspector is given. The work of his department is incorporated in this report.

I wish to place on record my appreciation of the help and support from the members of the Council and of the co-operation so freely given by the Council's Officers to Dr. Nicholas and to his predecessor, Dr. L. Youatt, during the period of my absence on war service from 1942 to 1946.

I am, Mr. Chairman and Gentlemen,
Your obedient Servant,

W. J. MOFFAT.

GENERAL STATISTICS.

Area (in acres) .. .. .. ..	..	6,811
Estimate of resident population in mid-1946 .. ..	..	16,680
Number of inhabited houses according to rate books .. ..	..	5,028
Rateable Value .. .. .. ..	..	£92,850
Sum represented by a penny rate .. .. .. ..	..	£369

Social Conditions. There has been no change of any note since 1939. There has been no unemployment problem.

VITAL STATISTICS.

It was not feasible during the war years to publish annual figures, but the opportunity is now taken to present certain of the Vital Statistics for the years 1939-46 inclusive.

The Vital Statistics relating to estimated mid-year populations of the District, Birth Rates and Death Rates, local and national, for each year from 1937 to 1946 are given in Table I.

In Table II are set out the Causes of Death according to the figures supplied by the Registrar General for the period 1939-46. The figures for 1939 have, as far as is possible from local knowledge, been assigned to the Abridged List of Causes of Death used by the Registrar General from 1940 onwards, and as set out in the Manual of the International List of Causes of Death of 1938.

Table III gives the deaths occurring in the various age groups of Residents of the District in the years 1939-46, whether these deaths took place inside or outside the District.

Table IV contains extracts from the Vital Statistics of the District relating to Live Births, legitimate and illegitimate; Still Births and Death Rates of infants, legitimate and illegitimate, under one year of age for the same period.

TABLE I.—VITAL STATISTICS OF DISTRICT FOR 1946 AND PREVIOUS YEARS.

Year	BIRTHS			DEATHS.			NETT		
	Population estimated mid-year	Nett.	Rate	Nett.	Rate	Under 1 Year of age	At all ages	Rate	Rate
1937	14650	213	14.5	14.9	224	69	16	4	18.0
1938	14800	209	14.1	15.1	250	92	22	7	33.0
1939	^a 15060	201	13.36	14.8	300	140	23	7	34.6
^b 15460									
1940	15810	232	14.6	14.1	378	211	13	16	68.7
1941	15820	221	13.9	13.9	338	162	18	13	58.0
1942	15920	231	14.5	15.6	322	150	29	10	43.3
1943	15620	249	15.9	16.2	321	157	27	10	40.2
1944	15400	309	20.0	17.7	316	150	22	10	32.3
1945	16200	275	17.0	15.9	276	123	33	14	50.9
1946	16680	323	19.37	19.1	225	94	35	4	18.6

TRANS-
FERABLE

ED IN DISTRICT
of Non-
Residence in
District registered
not registered
in District

ED IN DISTRICT
of Non-
Residence in
District registered
not registered
in District

a Wales
England

a Wales
England

Under 1 Year of age

At all ages

Rate

Rate

^a For calculation of Birth Rate.^b For calculation of Death Rates and Notifiable Disease.

* Rate per 1000 'related' births.

† Provisional.

NATURAL INCREASE
(Excess of Births over
Deaths)

TABLE II.—The Table below was compiled from figures supplied by the Registrar General and the classification is given under the new abridged list of causes of death as used in England and Wales contained in the Manual in the International List of Causes of Death.

Cause of Death	1939		1940		1941		1942		1943		1944		1945		1946			
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F		
Typhoid and paratyphoid fevers		
Cerebro-spinal fever	1	2	1	..	1	..	..	..	..	..	..	..	..	..
Scarlet fever	1	..	..	..	..	..
Whooping cough	1	..	..	..	..	..	..	..	..	..
Diphtheria	3	..	..	1	..	..	..	..	..
Tuberculosis of respiratory system	5	1	3	1	2	4	5	3	6	4	3	3	3	5	1	5		
Other forms of tuberculosis	..	1	1	..	..	..	..	1	..	..	..	1	2	2	2	2
Syphilitic disease	3	..	1	..	..	1	..	2	..	..	..
Influenza	1	1	2	..	..	1	..	4	3	1	..	1	2		
Measles		
Acute poliomyelitis and polio-encephalitis	1	1	..	..
Acute infectious encephalitis	1	..	..	..	..	..	..	..	..	..	..	..
Cancer of buccal cavity and oesophagus (M), uterus (F)	4	4	1	..	..	1	3	2	1	..	1	3	2	1	..	3
Cancer of stomach or duodenum	4	1	5	1	2	1	2	2	3	..	4	5	4	6	3	1		
Cancer of breast	3	..	2	..	3	..	3	..	..	3	..	2	1	2		
Cancer of all other sites	10	2	4	4	10	9	8	6	9	6	7	7	9	9	12	6		
Diabetes	..	1	2	1	..	..	1	1	..	1	1	1	1	2	..	3
Intra-cranial vascular lesions	..	7	11	16	24	12	18	22	20	17	22	8	19	13	19	8	14	
Heart disease	..	18	20	18	15	12	22	23	13	26	13	17	25	23	19	17	26	
Other diseases of circulatory system	12	14	..	2	1	3	..	2	2	1	2	1	2	2	2	1		
Bronchitis	2	4	10	7	11	6	3	3	4	8	5	3	1	3	1	
Pneumonia	4	1	7	8	12	6	11	5	6	4	7	3	4	1	2	3
Other respiratory diseases	..	1	2	1	..	..	..	..	1	3	..	2	1	1	2	..
Ulcer of Stomach or duodenum	..	2	..	2	5	1	5	..	2	1	1	..	2	1	
Diarrhoea under 2 years	..	1	..	1	1	..	3	..	..	..	1	..	..	..	..	..
Appendicitis	1	3	..	..	..	1	1	..	1	1	1	..	1	..		
Other digestive diseases	3	1	2	2	3	..	2	2	..	2	2	4	5	4	3	
Nephritis	1	1	3	2	2	2	1	1	..	1	1	2	..		
Puerperal & post abortive sepsis		
Other maternal causes	1	..	1	..	..	..	..	..	..	..	..	..	..	..
Premature birth	1	1	1	2	..	1	1	..	2	..	2	..	4	1	2	
Congenital malformation, birth injury, infantile disease	..	3	..	5	2	2	2	4	3	2	..	2	2	3	2	..		
Suicide	2	2	1	1	..	1	1	..	1	1	1	1	..	1		
Road traffic accidents	1	1	2	1	2	..	2	1	2	1	1	..	4		
Other violent causes	3	1	2	..	3	2	2	..	3	2	4	1	2	3		
All other causes	..	20	8	8	10	10	17	9	12	10	17	12	10	5	8	7	13	
All causes	..	99	84	82	97	85	109	116	85	109	82	92	96	93	93	79	87	

TABLE III. Nett Deaths at the Subjoined Ages of "Residents"
whether occurring within or without the District.

Year	At all Ages	Under 1 year	1-2 years	2-5 years	5-15 years	15-25 years	25-35 years	35-45 years	45-55 years	55-55 years	65-75 years	75 & upwards
1939	183	7	3	-	1	4	4	4	8	24	62	66
1940	179	17	-	2	1	3	1	2	15	21	42	75
1941	194	12	1	-	1	2	4	17	18	25	38	76
1942	201	10	-	2	1	2	8	12	12	35	58	61
1943	191	10	-	1	2	1	7	7	16	34	53	60
1944	188	10	1	2	-	1	6	9	15	27	60	57
1945	186	14	2	2	1	3	4	11	12	33	39	65
1946	166	6	-	2	3	1	4	5	14	22	46	63

TABLE IV.—EXTRACTS FROM VITAL STATISTICS 1939-46 INCLUSIVE.

Year	LIVE BIRTHS						STILL BIRTHS				DEATH RATE OF INFANTS UNDER 1 YEAR OF AGE			
	LEGITIMATE			ILLEGITIMATE			Total	M	F	Rate per 1000 total (live & still births)	Legitimate per 1000 estimated population	Illegitimate per 1000 legitimate live births	Death rate per 1000 per 1000 legitimate illegitimate live births	
	Total	M	F	Total	M	F								
1939	189	110	79	12	7	5	14.5	7	3	4	35.7	21.0	250	
1940	223	108	115	9	4	5	14.6	8	6	2	33.3	66.1	112	
1941	209	101	108	12	6	6	13.9	6	3	3	26.4	47.2	250	
1942	220	117	103	11	4	7	14.5	3	3	—	12.8	45.4	—	
1943	229	115	114	20	11	9	15.9	3	1	2	11.9	30.6	150	
1944	282	151	131	27	15	12	20.0	14	8	6	43.3	31.9	37	
1945	235	123	112	40	17	23	17.0	9	6	3	31.7	47.9	75	
1946	308	167	141	15	7	8	19.37	13	9	4	40.5	19.5	—	

GENERAL PROVISION OF HEALTH SERVICES.

Public Health Officers.

For list see page 1.

The Medical Officer of Health is also Medical Officer of Health for the Urban District of Witham and the Rural Districts of Braintree and Dunmow, and assistant Medical Officer to Essex County Council.

Laboratory Facilities. The bacteriological laboratory service is provided by the Essex County Council in agreement with the Ministry of Health. The laboratory serving the District is that at Essex County Council Hospital, Black Notley

Examinations of foodstuffs, including ice cream, water supplies and sewage effluents are carried out by the Counties' Public Health Laboratories, 66, Victoria Street, London, S.W.1., and of milk supplies by the Essex Institute of Agriculture at Writtle. All of these arrangements are under the control of the County Council.

Ambulance Facilities. A motor ambulance is provided at the William Julien Courtauld Hospital, Braintree, for the conveyance of cases of general sickness and accident. The Urban Council contribute £20 annually towards the upkeep of this ambulance

Cases of infectious disease in the District are transported by the motor ambulance belonging to the Braintree Joint Hospital Board. This ambulance is stationed at the Isolation Hospital, Cressing Road, Braintree.

The ambulance services have shown themselves to be adequate for the needs of the District. Under the Essex County Council's arrangements, co-ordination of ambulance services in adjoining districts is secured.

Hospitals. The William Julien Courtauld Hospital, Braintree, provides 25 beds for cases of general sickness and accident and a further 10 beds for maternity cases.

The Isolation Hospital at Cressing Road remained closed during the year owing to staffing difficulties. Accommodation for cases of infectious disease from the District is obtained at the Infectious Diseases Hospital, Colchester.

The Social Welfare Department of Essex County Council provide accommodation for cases of chronic sickness and infirmity at St. Michael's Hospital, Braintree.

The general hospitals at Chelmsford and Colchester, and the Essex County Council Hospital, Black Notley admit cases from the Urban District.

SANITARY CIRCUMSTANCES OF THE AREA.

WATER.

Apart from Queenborough Lane, and a few isolated properties in the outlying areas, the whole of the developed portion of the Urban District is now covered by piped main water supplies. There are now no public wells or pumps in the District.

The sources of water were the Council's boreholes at their Waterworks at Notley Road, Braintree, and King's Bridge, Bocking. With both works using their existing pumps to their maximum capacity, the supply of water was barely adequate to meet the peak demand. When the electric pumping plant at Notley Road broke down in the early part of the year, supplementary supplies were obtained from Messrs. Courtauld's well at Bocking, from which a connection to the Council's main had been made during the war, and from Braintree Rural District Council's main at Rayne by an over-ground connection.

The works at Notley Road on the bank of the River Brain date back to 1856 when No. 1. Bore, now disused and with machinery dismantled, was brought into operation. The total depth of this Bore was 330 feet, of which the bottom 100 feet were in the chalk. In 1856, the rest level of the water was within 12 feet of the surface. No. 2. Bore operated by a steam pump dates from 1881. It was enlarged in 1930. Since November, 1946, owing to the fall in the pumping level, this steam plant cannot now operate as a standby to the electric pump in No. 3. Bore, until pumping from the latter has ceased long enough (some 2 hours or more) to allow the rest level of the water to rise to the level of the steam pump suction which is at 168 feet below the surface. No. 3. bore which has an electrically driven centrifugal pump came into operation in July, 1933.

In 1938, it was becoming apparent that the Notley Road Works would not be capable much longer of maintaining an adequate supply, and in 1939, a report was received from the Council's Consulting Engineers in which they gave their opinion that further water could not be looked for from the Notley Road site, and advising the sinking of trial boreholes elsewhere. The war intervened before any further steps could be taken.

The Waterworks at King's Bridge, Bocking, beside the River Blackwater were opened in 1912. It became necessary to deepen the well and lower the pumps in 1929, because of a steady fall in rest level during the years it had been in use. Electric pumping plant was installed in 1932 and a duplicate plant 1942.

The Council are seeking to augment the existing sources of supply by sinking a borehole in the adjoining Rural District. A public inquiry into this proposal is still awaited.

At both Works, the water is subjected to chlorination before passing into supply. At Notley Road gaseous chlorine is the agent and at Bocking, hypochlorite solution.

Bacteriological examinations are made regularly, both of the raw waters from each source of supply, and of main water as sup-

plied to domestic consumers. The number of such examinations made during the year was: raw water supplies 7, main water in supply 11. All these samples were satisfactory in that they were reported upon as being consistent with pure and wholesome waters, suitable for drinking and domestic purposes.

Samples of water from both sources of public supply and from main water in supply are also submitted regularly for chemical analysis. In the year 1946, there were 6 such analysis of raw water and 1 of main water in supply.

Copies of typical reports by the Counties' Public Health Laboratories of the complete (chemical and bacteriological) analyses of the raw waters from Notley Road Waterworks, and from Bocking Waterworks will be found on pages 12 and 13 respectively.

No action was required during the year in respect of contamination. The waters are not liable to have any plumbo-solvent action.

The surveyor has supplied the following information with regard to the water consumption for the Urban District for the year 1946.

Amount of water, in gallons, obtained during the year from the following sources :—

Notley Road Water Works	131, 720, 000
Bocking Waterworks	54, 144, 000
*Messrs. Courtauld's	13, 269, 000
*Braintree Rural District Council	2, 247, 000
<hr/>	
Total	201, 380, 000
<hr/>	

*Emergency supplies obtained January to March.

The above total represents an average daily consumption per head, over the year, of 33.45 gallons for all purposes. The consumption for trade purposes was 26, 576, 000, gallons, equivalent to 4.41 gallons per head per day, which gives a net domestic consumption rate of 29.04 gallons per head per day.

The peak month for consumption was August when the water demand for trade purposes would be expected to be at its minimum. For this period the consumption was at the rate of 40.55 gallons per head per day for all purposes.

The water main was extended during the year to serve the new housing sites at Notley Road (Rifle Hill and Hillside Gardens) Howard Road and Panfield Lane (Housing Site No. 2.)

At the end of 1946, there were some 2,500 houses (nearly half the total) in the Urban District not provided with baths. Of that number approximately 1000 did not have a separate water supply.

It is only to be expected that the demand for water in the future will increase in proportion as the building of houses provided with modern facilities for the use of water proceeds, and as some of the older properties are converted to provide reasonable amenities.

WATER ANALYSES.

Date of Analysis 23. 5. 46.

Sample from BRAINTREE WATERWORKS

Chemical Results in Parts per 100,000.

Appearance: Clear and bright.
Turbidity Less than 5 parts per million, Silica Scale.

Colour	Normal	Odour	Nil
Reaction pH, on the alkaline side of neutrality	7.9	Free Carbonic Acid	0.5
Electric Conductivity at 20°C	1750	Total solids dried at 180°C	117.0
Chlorine in Chlorides	41.0	Alkalinity as Ca CO ₃	28.5
Hardness: Total	11.0	Nitrogen in nitrates	0.00
Temporary	11.0	Nitrogen in nitrites	Absent
Permanent	0.0	Free Ammonia	0.087
Oxygen absorbed in 4 hrs. at 27°C	0.0000	Albuminoid Ammonia	0.0000
Metals: Iron	Less than 0.003	Other metals absent	

Bacteriological Results.

1 day at 37°C 2 days at 37°C 3 days at 20°C

Number of Colonies developing on Agar per c.c or ml. in }	13	18	-
Presumptive Coliform Reaction	Present in -	Absent from 100 c.c.	
Bact. Coli.	Present in -	Absent from 100 c.c.	
Cl welchii Reaction	Present in -	Absent from -	

Report: This sample is clear and bright in appearance, almost neutral in reaction and free from metals apart from a negligible trace of iron. The water has very moderate hardness and is normal with respect to its appreciable salinity and content of mineral constituents. It is of good organic quality and of satisfactory bacterial purity and therefore considered wholesome in character and suitable for public supply purposes.

GORDON MILES, B.Sc., F.R.I.C.
The Counties Public Health Laboratories.

Date of Analysis 23. 5. 46.

Sample from BOCKING WATERWORKS.

Chemical Results in Parts per 100,000.

Appearance: Very faint opalescence with very slight deposit of mineral debris consisting of iron oxide.

Turbidity Less than 5 parts per million, Silica Scale.

Colour Normal Odour Nil

Reaction pH, Neutral 7.3 Free Carbonic Acid 2.1

Electric Conductivity at 20°C 900 Total solids dried at 180°C 60.0

Chlorine in Chlorides 12.2 Alkalinity as Ca CO₃ 29.0

Hardness: Total 30 Nitrogen in nitrates 0.00

Temporary 27.0 Nitrogen in nitrites Less than 0.001

Permanent 3.0 Free Ammonia 0.012

Oxygen absorbed in 4 hrs at 27°C 0.0000 Albuminoid Ammonia 0.0000

Metals: Total Iron 0.035 In solution 0.003 Other metals absent

Bacteriological Results.

1 day at 37°C 2 days 37°C 3 days at 20°C

Number of Colonies developing { 0 0 -
on Agar per c.c. or ml. in

Presumptive Coliform Reaction Present in - Absent from 100 c.c.

Bact. Coli Present in - Absent from 100 c.c.

Cl. welchii Reaction Present in - Absent -

Report: This sample has faint opalescence and slight deposit due to the presence of a trace of iron but the turbidity is not unduly great. The water is neutral in reaction, hard in character but not excessively so and contains no excess of salinity or mineral constituents in solution. It is of very satisfactory organic and bacterial purity.

These results are consistent with a wholesome water suitable for public supply purposes.

GORDON MILES, B.Sc., F.R.I.C.

The Counties Public Health Laboratories.

DRAINAGE AND SEWERAGE.

A system of sewers serves practically all of the developed portions of the District. The area served is that which has a piped main water supply. The sewers are, except in a few localities, on the combined system. Only in the more recently laid sewers are the storm water and foul sewer systems separate. In periods of heavy rainfall, surcharging of some sewers occurs and results in the backing up of sewage and storm water with consequent flooding from manholes and gully traps.

The problem facing the Council in order to obviate this flooding is a major one, and will involve a survey of the sewerage system of the District in order to make provision for the disposal of storm water.

Braintree Sewage Disposal Works. These works are totally inadequate for the work they have to perform. They are continuously overloaded to the extent of 50 to 100 per cent. over their designed capacity. These conditions have prevailed for over ten years.

Samples of the effluent taken at intervals by the Essex County Council have invariably been bad. Various temporary expedients have been tried but no improvement of any note has been obtained in the effluent.

A scheme was prepared in 1939 for enlarging and modernising the works. This was approved by the Ministry of Health, after the holding of a Public Inquiry, but the outbreak of war intervened to cause the postponement of the work. An approach is being made by the Council to the Ministry of Health for their views regarding the date when a beginning should be made on the necessary enlargement and modernisation of these Disposal Works.

Bocking Sewage Disposal Works. Out of three samples of the effluent from these works, two were reported as unsatisfactory. One of these unsatisfactory results was due to a mechanical failure of a pump, the other only just failed to comply with the County Council's standards.

During the year the main sewers were extended as follows :-

Notley Road, Hillside Gardens,	}	draining to Braintree
Howard Road,		Sewage Works,

Panfield Lane, No. 2, Housing site, draining to Bocking Sewage Works.

Apart from outlying parts of the District the only unsewered portions now remaining are Queenborough Lane, the further end of Notley Road and the Council Houses in Panfield Lane which were erected by Braintree Rural District Council before the amalgamation of Braintree and Bocking.

RIVERS AND STREAMS.

Pollution of the River Brain takes place at the outfall sewer from Braintree Sewage Disposal Works.

PUBLIC CLEANSING.

There is a weekly collection of household refuse throughout the Urban District. This is combined with the collection of salvage, and is under the control of the Surveyor.

The refuse is disposed of by tipping at Rifle Hill.

In the summer of 1946, the amount of refuse coming into the tip was too great for the available staff and for the amount of topsoil cover available. In consequence, the tip became infested with rats, flies and crickets and considerable time had to be devoted to dealing with these infestations by the Sanitary Inspector's staff. Gammexane was employed as a tip dressing. Several treatments were also given by the Rodent Control Officer.

SANITARY INSPECTION OF THE AREA.

Investigations were made during the year on receipt of complaints of nuisances, sanitary defects and housing disrepair, and follow-up visits were paid as and when necessary.

The position at the end of the year was as shown in the following abstract.

Complaints received	274
Informal Notices served	326
Informal Notices outstanding	60
Statutory Notices served	131
Statutory Notices outstanding	14

SHOPS.

Routine inspections of shops were made during the year. In one instance sanitary accommodation and heating was provided to remedy a deficiency.

SWIMMING BATHS AND POOLS.

There are two swimming pools in the Urban District, one is owned by the District Council and the other is privately owned. Both pools are equipped with apparatus for the purification of the water in use by continuous circulation through pressure filters, sterilisation with chlorine and ammonia, and aeration.

Samples of water from both pools are taken regularly and submitted for chemical and bacteriological analysis.

A sample of the water from the privately owned pool taken on 15th August, was reported upon as follows:—

"This sample is practically clear and bright in appearance and free from metals apart from a negligible trace of iron. Its reaction is

on the alkaline side of neutrality, and it is free from any excess of mineral or saline constituents in solution. A residuum of free chlorine is present and the water is of satisfactory organic quality and bacterial purity.

This water shows considerable improvement over the previous sample and is considered suitable for swimming bath purposes."

The previous sample, referred to in the above report had shown an increase in free ammonia which, on investigation was found to be due to the introduction of an excess of ammonia into the water from a leaking valve in the purification plant.

A sample taken from the Council's Bath on 9th July was reported upon as follows :—

" This sample is reasonably clear and bright in appearance and free from metals apart from a trace of iron. Its reaction is on the alkaline side of neutrality and it is free from any excess of mineral or saline constituents in solution. The water is of passable organic quality, but large numbers of bacteria are present, due to the absence of a residuum of free chlorine.

These results indicate that the dosage of chlorine or hypochlorite preparation should be increased in order to maintain a satisfactory residuum in the water."

Subsequent to this report the dosage of chlorine was stepped up and the water reported upon as being of fairly satisfactory bacterial purity for swimming bath purposes.

DISINFESTATIONS.

During the year, 27 premises were found to be infested by vermin and were dealt with.

The premises affected included Council houses infested by bugs and recently erected prefabricated bungalows which were infested by flies and crickets from the tip nearby. In the case of the refuse tip itself, treatment for flies and crickets was carried out continuously during the hot weather. D.D.T. was used in treating the bungalows for flies and crickets.

With regard to the treatment of premises infested by bugs, the use of a five per cent. solution of D.D.T. in kerosene was found to be most effective.

Scabies Order, 1941. Two persons were served with notices under the above order on suspicion of being infested with lice. As a result of the examination, the suspicions were confirmed, both persons were cleansed and their clothing disinfected by steam.

RATS AND MICE

In December, 1943, at the request of the Ministry of Food, Infestation Division, a Joint Committee was formed consisting of

representatives from the Urban District Councils of Braintree, Halstead and Witham and the Rural District Councils of Braintree and Halstead in order to co-ordinate the work of Rat and Mice Destruction in five Districts. The Chief Sanitary Inspector acts as Honorary Secretary to the Committee, and organises the work of destruction carried out by the Rodent Officer in the various Districts. Witham Urban District Council whilst sending representatives to the Committee have organised the work of destruction in their own district.

Regular surveys and treatment for rodent infestation continued throughout the year as in previous years.

The Council began the operation of the scheme for rodent control under the Ministry of Food N.S. 12 scheme for rodent control for the treatment of residential properties. This scheme resulted in a larger number of infestations being brought to light and dealt with than would otherwise have been the case.

It is to be regretted that this free domestic service will cease in 1947, when reversion will have to be made to the previous cumbersome administrative measures of the Rats and Mice (Destruction) Act 1919.

FACTORIES ACT, 1937.

There are 56 premises on the register in the Urban District. Of these 37 have mechanical power and the Council are only concerned with the provisions of the Act relating to sanitary accommodation. In the case of the 19 factories without mechanical power the Council are in addition responsible for other measures relating to health; i.e. the provisions as to cleanliness, overcrowding, temperature, ventilation and drainage of floors.

Routine inspections were carried out, and, as a result, eight informal and two statutory notices were served to remedy defects.

Defects found and dealt with included provision and repair of sanitary accommodation, repair of walls and ceilings and general cleansing.

Extracts from Outworkers' lists have been supplied by other local authorities, showing that 23 persons resident in the Urban District are engaged in outwork received from factories in other areas.

No instances were found of work being carried out in unwholesome premises.

HOUSING.

At present there are no reliable figures available to show the type and total amount of new construction required to deal with the general insufficiency of housing accommodation within the District. Of the existing houses, it is estimated that some 1000 are sub-standard and the majority of these could not economically be brought up to a modern standard of fitness. Many such houses, the subject of Demolition or Clearance Orders, are still occupied, 24 of these being requisitioned by the Council in order to house persons inadequately housed.

The pre-war conception of over-crowding is now out of date and doubtless when more accommodation is available the standard to be adopted will be one family to one house or flat, and that living rooms will not be regarded as part of the available sleeping-space of a house. Even with the over-crowding which exists today, living rooms are but rarely used for sleeping.

During the war, 55 houses in the Urban District were destroyed by enemy action and a further 153 required extensive repairs and were unoccupied for a considerable period.

At the end of the year the Council had completed seventy houses, 14 in Panfield Lane, 6 bungalows (Elm Bungalows) and 50 pre-fabricated bungalows in Hillside Gardens and Rifle Hill. A total of 62 houses had also been completed by private enterprise in the same period.

Additional accommodation was also made available by the conversion of large houses into flats. Eight such dwellings were occupied by 31st December, 1946.

INSPECTION AND SUPERVISION OF FOOD.

Milk Supply. The following premises in the Urban District are registered under the Milk and Dairies Order, 1926 :-

FARMS AND OTHER PREMISES USED AS DAIRIES

Cowsheds	16
Dairies	6

Under the same order the following are also registered

COWKEEPERS AND DAIRYMEN

Producers and Wholesale Traders ..	16
Retail Purveyors	27

The Essex County Council are the authority under the Milk (Special Designations) Orders for the licensing of premises used for the production of designated milks. Before a licence is granted all premises are brought up to the standard of fitness required by the Urban District Council under the provisions of the Milk and Dairies Order. Producers with premises in the Urban District licensed by the County Council are as follows :-

Tuberculin Tested	8
Accredited	4

The Urban District Council issue licences to dealers to use the special designations. In order to encourage the retailing of designated milks no fees are charged. Licences were granted during the year as follows :-

TUBERCULIN TESTED MILK

Licence to bottle	1
Dealers licences	7

PASTEURISED MILK

Dealers licences	1
------------------------	---

Following on complaints received in 1944 and 1945 of souring of milk received into the Urban District from a wholesale firm in the Rural District, the Council had made representations to the Ministry of Food. As a result, early in 1946, the Ministry of Food made available a supply of Pasteurised Milk in place of that about which complaints had been received.

No complaints have been recorded for the year under review.

Meat. The scheme for centralised slaughtering under the Ministry of Food continued during the year. Two slaughterhouses have been used exclusively by the Ministry and these premises have to serve a large surrounding area as well as the Urban District.

The remainder of the privately owned slaughterhouses have not been used. There are six licensed slaughterhouses and one knackers yard in the Urban District.

The Council's Inspectors undertake the work of meat inspection at the Ministry of Food slaughterhouses. Unfortunately, it was not possible to obtain one hundred per cent inspection of all animals slaughtered during the year, as, for two months, the appointment of Additional Sanitary Inspector was vacant.

Details of the numbers of animals slaughtered and inspected during the year are given below -

	Cattle excluding cows				
	Cows	Calves	Sheep	Pigs	
Number killed	1,566	570	1,729	3,336	774
Number inspected	1,557	570	1,659	3,219	765
Percentage inspected	99.45	100	95.95	96.49	98.83
Meat condemned (lbs)	<u>52,736</u>		770	3,162	

Details of whole carcases condemned (included in the above table) were as follows :

	Cattle excluding cows				
	Cows	Calves	Sheep	Pigs	
Tuberculosis	9	28	2	-	3
Other diseases	5	4	5	9	32
Total	14	32	7	9	35

In all cases the unsound food which was condemned was salvaged and used for trade purposes other than for human consumption.

Other Foods. Routine inspections were carried out in food shops and places where food is prepared. Details of the foodstuffs condemned as unfit for human consumption during the year were as follows :—

Corned Beef	3,224 lbs.	Peas and Beans	87 lbs.
Tinned Meat	273 lbs.	Fish	728 lbs.
Milk	1,084 lbs.	Preserves	62 lbs.
Flour	39 lbs.	Fruit	48 lbs.
Eggs	68 lbs.	Vegetables	7 lbs.
Sausage Meat	76 lbs.	Fats	2 lbs.
Miscellaneous	250 lbs.		
		Total	5,948 lbs.

Ice Cream. Under section 158 of the Essex County Council Act of 1933 there were five manufacturers and eight vendors of ice cream registered in the Urban District.

During August, samples of ice cream were taken from retailers in the District.

Reports upon the bacteriological examination of the samples were as follows :—

Sample No.	Producer	Colonies per ml.	Coliform test	Bact. coli.	Report
1.	Prepacked	1,000	Negative	Negative	High Standard
2.	Local	50 000	Negative	Negative	Satisfactory
3.	Local	13,000	Negative	Negative	Satisfactory
4.	Prepacked	1,500	Negative	Negative	High Standard
5.	Local	7,000	Negative	Negative	Satisfactory

NOTIFIABLE DISEASES (OTHER THAN TUBERCULOSIS AND INFECTIVE HEPATITIS) NOTIFIED DURING THE YEAR 1946.

Notifiable Disease	At all Ages	Number of Cases Notified										Cases Admitted to Hospital Over 65 and 45 to 65	Total Number of Deaths
		Under 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 10	10 to 15	15 to 20	20 to 35	35 to 45		
Scarlet fever	..	2	..	..	..	..	..	..	1	1	..	..	1
Cerebo-spinal fever	..	1	1	..	..	..	..	..	..	..	..	..	1
Measles	..	41	1	5	..	8	..	25	1	..	..	..	..
Whooping Cough	..	5	..	1	..	3	..	1	..	..	..	..	..
Dysentery	..	5	..	1	..	3	..	1	..	..	..	..	..
Totals	..	54	2	7	..	14	..	27	1	1	2	..	2
Food poisoning	..	6	..	..	1	..	..	1	1	2	1	..	..

PREVALENCE OF AND CONTROL OVER INFECTIOUS DISEASE.

The incidence of cases of notifiable disease other than tuberculosis and infective hepatitis during the year was as set out in the table on page 21.

The cases of food poisoning were notified at the time of the outbreak of food poisoning in Witham Urban District and the surrounding area. It was not possible to establish a direct connection between these cases in the Urban District and the outbreak at Witham, although the likelihood is that such connection did exist.

Infective Hepatitis. This condition was made locally notifiable in the District, as part of the Eastern Region, in December, 1943, by the Jaundice Regulations of 1943. The following table shows the numbers and age distribution of the cases since the disease became notifiable.

None of the cases were admitted to hospital. There were no deaths from the disease.

Year	At all ages	Under 1 year	1 to 2 years	2 to 3 years	3 to 4 years	4 to 5 years	5 to 10 years	10 to 15 years	15 to 20 years	20 to 35 years	35 to 45 years	45 to 65 years	65 and over
1943	Nil	...	...	...	...	...	...	...	...	...	...	...	...
1944	12	...	...	...	...	...	2	2	3	4	...	1	...
1945	Nil	...	...	...	...	...	...	...	...	...	...	...	...
1946	3	...	...	...	...	...	...	1	...	1	1	...	...

Diphtheria Prophylaxis. By 31st December, 1946, after the provision of free immunisation, either by the Council or by Essex County Council as the Welfare Authority for the area, had been in operation for six years, a total of 2,067 children then under the age of fifteen years had completed a full course of immunisation under these auspices. Of that total 643 were in the age group 0 to 4 years and represent 54.95% of the child population in that age group. In the age group 5 to 15 years, 1,424 children representing 71.2% of the estimated mid-year population in that age group had been immunised.

It is known that many children are now being immunised privately by general practitioners in the district. The numbers cannot be ascertained, but it would be reasonable to estimate that some fifteen to twenty per cent. of the 0 to 4 age group are now immunised annually in this way.

Tuberculosis. Particulars of the new cases of tuberculosis reported during the year and of deaths from the disease in the District are set out in the Table below

Age-Periods (Years)	NEW CASES				DEATHS			
	Pulmonary		Non-Pulmonary		Pulmonary		Non-Pulmonary	
	M	F	M	F	M	F	M	F
0 to 1	..	..	..	..	..	..	..	..
1 „ 5	..	1	..	..	..	..	..	..
5 „ 10	..	..	..	..	..	..	..	1
10 „ 15	..	..	..	1	..	..	..	..
15 „ 20	1	..	..	..	..	..	..	..
20 „ 25	3	4	..	..	..	1	..	..
25 „ 35	5	1	1	1	..	1	..	..
35 „ 45	2	4	..	..	..	1	..	..
45 „ 55	1	1	1	..	1	1	..	..
55 „ 65	2	..	..	..	2	..	..	..
65 and upward	..	1	..	..	..	1	..	..
TOTALS	14	12	2	2	3	5	..	1
			26	4			8	1

At the end of the year there remained 138 cases on the Tuberculosis Register of the District. These were as follows:—

Pulmonary	Males	Females	
	Non-pulmonary	Pulmonary	Non-pulmonary
48	22	37	31

At the end of the year, of the cases of respiratory tuberculosis on the register, five were occupying unsatisfactory housing accommodation and a further two were living in definitely poor houses. It is hoped that the housing of these cases will be much improved very shortly.

